

# MONTANA

## Career Technical Education (CTE) Profile

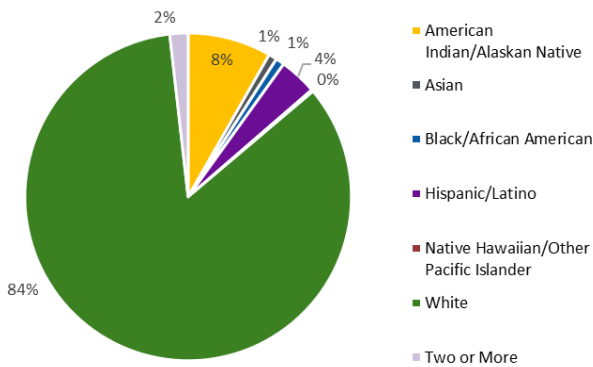


**NAPE**  
National Alliance for  
Partnerships in Equity  
Education Foundation

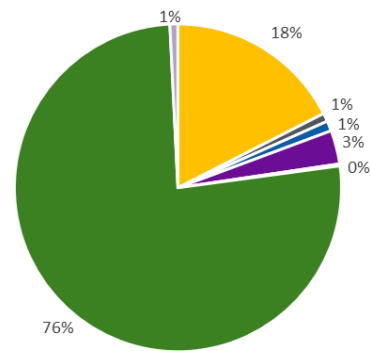
### Career and Technical Education

Secondary CTE is delivered through comprehensive high schools. Postsecondary CTE is delivered through colleges of technology, which serve as the 2-year college/career training arm of several universities, community colleges, tribal colleges, and 4-year institutions that offer associate degrees and certificates. The Office of the Commissioner of Higher Education has the overall responsibility for administration of Perkins funds.<sup>1</sup>

Secondary CTE Participators, FY 2015<sup>2</sup>



Postsecondary CTE Participators, FY 2015<sup>2</sup>

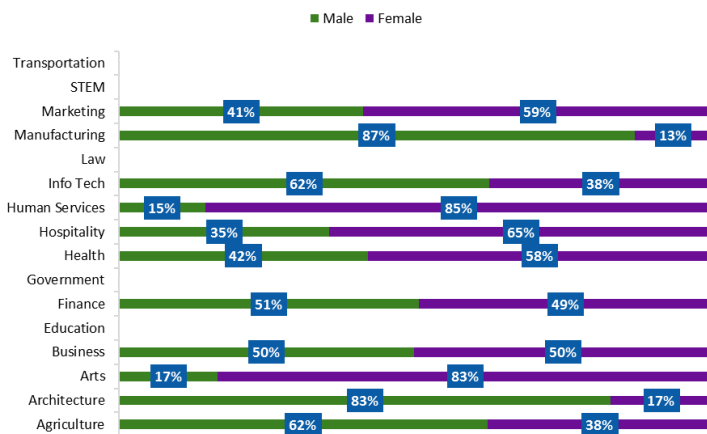


In FY 2015, **5%** of secondary and **50%** of postsecondary students enrolled in CTE were economically disadvantaged.<sup>2</sup>

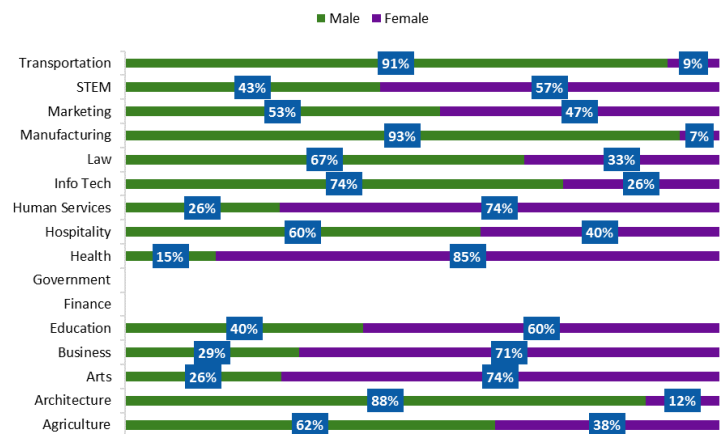
### Career Clusters

Seven of the 16 career clusters in CTE lead to high-skill, high-wage, and high-demand STEM-related careers. These clusters include Agriculture, Architecture, Health, Information Technology, Manufacturing, STEM, and Transportation, Distribution, and Logistics and contain programs that prepare students for nontraditional careers.

Secondary Enrollment, FY 2015<sup>3</sup>



Postsecondary Enrollment, FY 2015<sup>3</sup>



## Middle-Skill and STEM Jobs

The pipeline to middle-skill and STEM jobs loses young people at every level of the education system. Thus, the supply of sufficiently trained workers will not meet the demand of key industries.

### Fast Facts

From 2014 to 2024...

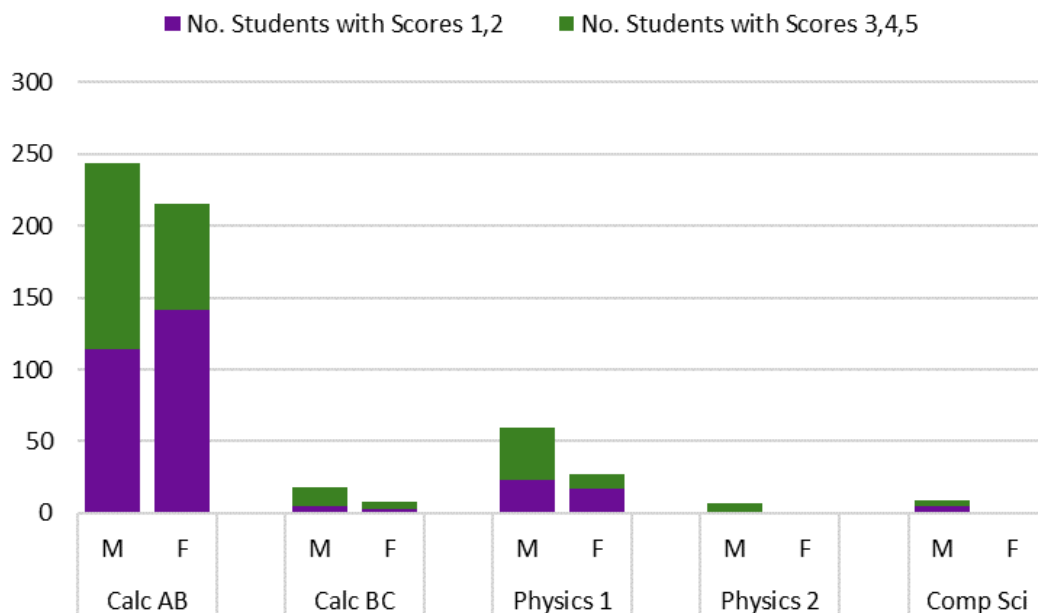
- Computing jobs will grow by **21%**.<sup>4</sup>
- Engineering jobs will grow by **23%**.<sup>4</sup>
- Advanced manufacturing jobs will grow by **23%**.<sup>4</sup>
- Of all job openings, **50%** will require training at the middle skill-level.<sup>5</sup>

Yet...

- **25%** of students who enter an associate's degree program graduate.<sup>4</sup>
- **46%** of students who enter a bachelor's degree program graduate.<sup>4</sup>
- **47%** of workers are trained to the middle-skill level.<sup>5</sup>

### 2016 AP Test Taking and Passing<sup>6</sup>

Students pursuing careers in STEM, particularly computer science and engineering, must become academically prepared early in their educational trajectory.<sup>7</sup>



For Montana, in 2016, college-bound female students earned an average math SAT score of **542**, compared to **577** for male students.<sup>8</sup>

### State CTE Contact

*Erik Rose*, Compliance and Workforce Data Analyst, Montana University System, 2500 Broadway, P.O. Box 203201, Helena, MT 59620-3201, (406) 444-0313, [erose@montana.edu](mailto:erose@montana.edu)

### Data Sources (retrieved April 2017)

<sup>1</sup> <https://www.actonline.org/stateprofiles/>

<sup>2</sup> <https://perkins.ed.gov/pims/DataExplorer/CTEParticipant>

<sup>3</sup> <https://perkins.ed.gov/pims/DataExplorer/CTEConcentrator> (race not available for clusters)

<sup>4</sup> <http://vitalsigns.changetheequation.org/>

<sup>5</sup> <http://www.nationalskillscoalition.org/state-policy/fact-sheets>

<sup>6</sup> <https://research.collegeboard.org/programs/ap/data/participation/ap-2016>

<sup>7</sup> <http://ieeexplore.ieee.org/document/1264690/>

<sup>8</sup> <https://reports.collegeboard.org/sat-suite-program-results/class-of-2016-results/state-reports>